cal, aerogeophysical, photogeological, remote sensing, engineering and related research and developmental laboratory efforts etc. to fulfil the objectives of regional geological studies and mineral targetting. Hence the sole work of AMSE Wing is not limited to airborne geophysical survey. There is however no bar to a Dy. Director General of Geophysics discipline becoming the Head of the AMSE Wing.

(d) Does not arise.

(e) Does not arise in view of reply to (a) above.

Functions of Airborne Mineral Surveys and Explorations Wing

3853 SHRI GURUDAS DAS GUPTA: Will the Minister of STEEL AND MINES be pleased to state:

(a) what is the basic work of Airborne Mineral Surveys and Explorations Wing of Geological Survey of India;

(b) whether there is any demarcation between the Geophysical and geological surveys so far as the AMSE is concerned;

(c) if both geological and geophysical surveys are part of Airborne Survey with geophysical instruments; what was need to have separate region when other regions are handling similar work;

(d) if geophysical surveys are the main and only work of the AMSE; what is the reasons that the head of the Division was drawn from geology wing, and

(e) whether any proposal is under consideration of Government to transfer all geophysicists of the GSI to AMSE wing to constitute a specialised wing of Airborne geophysical surveys; if not, what are the reasons therefor?

THE MINISTER OF STATE IN THE DEPARTMENT OF MINES IN THE MINISTRY OF STEEL AND MINES (SHRIMATI RAM DULARI SINHA): (a) The main functions of AMSE Wing of Geological Survey of India involve integrated multidisciplinary survey and exploration technique comprising geological, geophysical, Aerogeophysical, geochemical, photogeological and Remote Sensing engineering and related Research and Development efforts to fulfil regional geological and mineral targeting objectives. The Wing is engaged for continuous production of Aero-geophysical maps, acquisition and processing of multi-sensor data for identification and evaluation and selection of target areas leading to ground follow up including test drilling over promising anomalies.

(b) No, Sir. In fact Airborne Surveys are planned for certain priority areas based on geological reasoning and it is at best only a tool to aid geological studies especially over covered areas. Eventually Airborne geophysical data has to be correlated and synthesised concurrently with geological, geochemical, ground geophysical data for mineral targeting.

(c) A separate region for Airborne Survey was created to carry out expeditious coverage of the country through airborne geophysical surveys and integrated ground followup of the thousands of anomalies resulting from such surveys on a warfooting. The other regions are engaged in regular geophysical and geological surveys for various tasks like prospecting of minerals (including coal) and to solve specific geological, geotechnical, geothermal, geo-environmental problems.

(d) Aerial surveys and associated data processing form only one part of AMSE's functions, which involve the whole gamut of operations right from pre flight logistics to integrated ground follow up leading to test drilling over promising anomalies.

The head of the division could be drawn from either of the geological or geophysical streams depending on his suitability.

(e) Since AMSE Wing's function is of an integrated multi-disciplinary nature there is no proposal to transfer all geophysicists of GSI to AMSE Wing as the geophysicists of the regions have their own specific role to play in their respective regions.

Project Vasundhara of Air-borne Mineral Surveys and Exploration Wing

3854 SHRI GURUDAS DAS GUPTA: Will the Minister of STEEL AND MINES be pleased to state:

(a) whether the project Vasundhara listed in Annual Field Programme for 1987-88 of Air-borne Mineral Surveys and Exploration Wing of the Geological Survey of India is a airborne Geophysical survey;

(b) if so, what are the results the project is expected to produce;

(c) whether it is a fact that the project's main work is compilation of statistical data available in various records which normally a senior Tech Assistant (Geology) is expected to do;

(d) if not, what field work either by air or through land is likely to be carried out by officers listed in the programme; and

(e) what is the exact work entrusted to each of the Officers detailed on this project, and what are the reasons that it was not indicated in the Programme?

THE MINISTER OF STATE IN THE DEPARTMENT OF MINES IN THE MINISTRY OF STEEL AND MINES (SHRIMATI RAM DULARI SINHA): (a) Project Vasundhara is not an air-borne geophysical survey programme as such. It is an inter-departmental (involving Department of Mines and Department of Space) collaborative multi-disciplinary project executed by Geological Survey of India and Indian Space Research Organisation.

(b) Project Vasundhara is executed to generate digital cartographic data base and transfer of the diverse thematic data involving geological, topographic, magnetic, mineral locations data etc., on to this base to create a comprehensive information system and to evolve and optimise procedure for multi-theme data integration for mineral targeting.

(c) The main work involves interpretation, analysis and concurrent synthesis of landsat imagery data, airborne geophysical data, gravity data, mineral occurrences data etc., through digital processing for preparation of prognostic maps indicating potential target areas. The work cannot be carried out by Senior Technical Assistants and needs experienced geoscientists with knowledge of Statistics and computer techniques.

(d) It is proposed to carry out ground geological and geophysical surveys in three out of eight selected blocks during 1987-88 to aid the incorporation of multi-theme data in the geographical information system under development.

(e) The work is being carried out as a collaborative team effort and cannot be individually apportioned. It has been usual practice to give total quantum of work and names of officers for any FSP of Geological Survey of Inida.

Surveys conducted by Airborne Mineral Surveys and Exploration wing

3855 SHRI CHATURANAN MISHRA: Will the Minister of STEEL AND MINES be pleased to state:

(a) the number of Airborne Geophysical Survey carried out by the Airborne Mineral Surveys and Ex-